DOE F 540.1#
(03/09)

U.S. Department of Energy
State Energy Program (SEP) Narrative Information Worksheet

OMB Control No.: 1910-5126
Expires: TBD

(Grant Number: EE00227)

State Title: Massachusetts Solar Stimulus Program

1. Market (choose one):

❑ Buildings	❑ Industry
× Electric Power and Renewable Energy	❑ Policy, Planning, and Energy Security
❑ Energy Education	❑ Transportation

2. State: MA

3. Program Year: 2009 Date Start: 4/1/2009 Date End: 3/31/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

❑ Agriculture	× Federal, state, and local facilities	❑ Procurement of efficient products **
❑ Alternative fuels	❑ Federal Energy Management Program	❑ Public information
❑ Appliance efficiency and standards	❑ Financing energy programs	❑ Rating and labeling
❑ Bioenergy and biobased products	❑ Fuel cells	❑ Rebuild America
❑ Biomass power	❑ General energy efficiency for industry	❑ Residential buildings
❑ Building America	❑ Geothermal	❑ Right turn on red **
❑ Carpools, vanpools, and ridesharing **	❑ Green power programs	❑ Schools
❑ Clean Cities	❑ Heavy vehicles and trucks	× Solar power
❑ Climate change planning	❑ Home energy ratings	❑ State energy strategic plans
❑ Combined heat and power	❑ Hydrogen	❑ Telecommuting
❑ Commercial buildings	❑ Hydropower	❑ Thermal **
❑ Curriculum development	❑ Industrial processing	❑ Traffic signals
❑ Demand reduction	❑ Industries of the future	❑ Transmission and infrastructure reliability
❑ Distributed energy generation	❑ Lighting **	❑ Transportation alternatives
❑ Energy and environment	❑ Low-income weatherization	❑ Waste management and recycling
❑ Energy building codes	❑ Manufacturing	❑ Water systems
❑ Energy consumption and price statistics	❑ Motors and other industrial systems	❑ Wind energy
❑ Energy emergency planning	❑ Performance contracting	
❑ ENERGY STAR	❑ Policy and energy legislation	

5. Estimated Annual Energy Savings: 32,290 MBtus

6. Description (executive summary of goals and objectives)*

Massachusetts plans to invest in solar photovoltaic energy generation (PV) on public facilities throughout the state, leveraging funds made available under the American Reconstruction and Recovery Act (ARRA) to the greatest extent possible. Through an Energy Task Force of the Governor's Mobilization Effort conducted in preparation for ARRA, the Commonwealth identified over 13 MWs of roof and ground-mounted PV installation, of which at least 8 MW could be funded through SEP funds and an additional 5 MW through the Green Infrastructure set-aside for the State Revolving Fund for Clean and Drinking Water. (The exact number of projects and capacity that could be funded will depend on the bids received.) In addition, a Municipal Task Force identified a number of additional potentially suitable projects that could be funded through the Energy Efficiency and Conservation Block Grant.
(continued on next page)

7. Program Year Milestones*

	Milestone	Planned (Number)
1	Contracts negotiated and signed; projects initiated	8
2	Projects completed	8
3		
4		

Please use additional pages if more space is needed.
***Mandatory requirement*

6. Description (executive summary of goals and objectives)* (cont.)

Key principles guiding this effort are:

- rapid deployment of large systems to maximize PV capacity while providing maximum transparency and accountability
- leveraging of federal funds to the fullest extent possible using, where appropriate, 3rd party providers to install and maintain large solar arrays
- obtaining extremely competitive pricing via volume procurements and purchasing and providing fixed long-term electric rates for a number of facilities
- reducing the long-term operating costs of state and municipal facilities
- fostering expansion of the Massachusetts PV industry and create local jobs

Most projects will provide power for on-site demand, however, some systems may supply power back to the grid and receive net-metering credits. For power purchase agreements, the acceptable cost of power is projected to be close to the current cost of power at each facility with annual escalation rates less than inflation, e.g. 2.5%. These agreements will provide a relatively fixed long-term electricity rate, compared to the potential price volatility and risk associated with grid power.

Only roofs capable of carrying structural loads and in good condition will be part of a final solicitation. Those public facilities that meet the minimum criteria for participation will be invited to become Program Participants by submitting certain facility information.

Pursuant to its authority under M.G.L. c. 25A, §6, the Massachusetts Department of Energy Resources (DOER) has developed this program to rapidly install PV on public facilities. On behalf of the program participants, DOER will issue a Request for Responses (RFR), pursuant to M.G.L. c. 25A, §11C, through the Commonwealth's Procurement Access & Solicitation System (Comm-PASS).

The RFR will provide a list of public facilities that wish to enter into contracts with the selected vendor. The RFR will also provide details on a subset of these facilities that are ready for immediate construction. DOER, on behalf of all Program Participants, will seek proposals that include 3 separate components: a non-price proposal on the respondents experience and qualifications; a price proposal for solar power purchase agreements for up to five select sites; and an indicative price proposal for the types of remaining projects.

To be considered an eligible bidder, respondents to the RFR must meet the minimum qualifications stated in the RFR, including certification from the Massachusetts Department of Capital Asset Management (DCAM) as an Electrical or Energy Management System contractor. Alternatively, respondents may choose to partner with an appropriate certified entity.

Upon receipt of all proposals, DOER, in consultation with a program evaluation team, will identify qualified bidders based on the non-price proposals and then evaluate the sealed price proposals to select the winning bidder. DOER will then invite each Program Participant to negotiate individual contracts with the selected vendor, consistent with the terms of the RFR, the ARRA terms and conditions, the Commonwealth's terms and conditions, and the respondent's proposal.

8. Standard Metrics (required):**

JOB METRICS	Planned
Jobs Created	652^
Jobs Retained	0
TOTAL JOBS	652

^ Based on $92,000 per job as required by DOE.

9. Specific Metric Activity (required):**

Metric Activity: _Renewable Energy Market Development_____

SPECIFIC METRICS	Planned
Number of solar energy systems installed	16

10. User Specified Metrics (optional): *

METRICS	Planned
N/A	

11. Program Year Funds by Source *

a. SEP grant (all funds in the approved budget)	Planned
DOE ARRA	$ 20,000,000
	$
Market Budget Total	$
b. Leveraged funds anticipated (outside approved budget)	
Investment tax credit	$ 18,000,000
Private financing of power purchase agreements	$ 22,000,000

Please use additional pages if more space is needed.

***Mandatory requirement*

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(03/09)

U.S. Department of Energy
State Energy Program (SEP) Narrative Information Worksheet

OMB Control No.: 1910-5126
Expires: TBD

(Grant Number: EE00227)

State Title: Energy Efficiency at State Facilities

1. Market (choose one):

× Buildings	❑ Industry
❑ Electric Power and Renewable Energy	❑ Policy, Planning, and Energy Security
❑ Energy Education	❑ Transportation

2. State: MA

3. Program Year: 2009 Date Start: 4/1/2009 Date End: 3/31/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

❑ Agriculture	× Federal, state, and local facilities	× Procurement of efficient products **
❑ Alternative fuels	❑ Federal Energy Management Program	❑ Public information
❑ Appliance efficiency and standards	❑ Financing energy programs	❑ Rating and labeling
❑ Bioenergy and biobased products	❑ Fuel cells	❑ Rebuild America
❑ Biomass power	❑ General energy efficiency for industry	❑ Residential buildings
❑ Building America	❑ Geothermal	❑ Right turn on red **
❑ Carpools, vanpools, and ridesharing **	❑ Green power programs	❑ Schools
❑ Clean Cities	❑ Heavy vehicles and trucks	❑ Solar power
❑ Climate change planning	❑ Home energy ratings	❑ State energy strategic plans
❑ Combined heat and power	❑ Hydrogen	❑ Telecommuting
❑ Commercial buildings	❑ Hydropower	❑ Thermal **
❑ Curriculum development	❑ Industrial processing	❑ Traffic signals
❑ Demand reduction	❑ Industries of the future	❑ Transmission and infrastructure reliability
❑ Distributed energy generation	❑ Lighting **	❑ Transportation alternatives
❑ Energy and environment	❑ Low-income weatherization	❑ Waste management and recycling
❑ Energy building codes	❑ Manufacturing	❑ Water systems
❑ Energy consumption and price statistics	❑ Motors and other industrial systems	❑ Wind energy
❑ Energy emergency planning	× Performance contracting	
❑ ENERGY STAR	❑ Policy and energy legislation	

5. Estimated Annual Energy Savings: 458,980 MBtus

6. Description (executive summary of goals and objectives)*

The Governor's Energy Task Force identified $1.16 billion in energy efficiency retrofits and renewable energy projects at public facilities. With limited SEP funds available, we plan to leverage funds maximally by using performance contracts wherever possible.

(continued on next page)

7. Program Year Milestones*

	Milestone	Planned (Number)
1	40% of building space initiated	7,344,000
2	60% of building space initiated 20% substantially complete	11,016,000 3,672,000
3	60% substantially complete	11,016,000
4	20% substantially complete	3,672,000

Please use additional pages if more space is needed.
***Mandatory requirement*

6. Description (executive summary of goals and objectives)* (cont.)
SEP funds will provide the project management resources required to accelerate retrofits identified considerably, with a plan of initiating work on a 4 year pipeline of performance contracts in 18 months. We expect to leverage over $290 million in private financing for these projects. In addition, SEP funds will allow us to "buy down" the installed cost of a few innovative technologies with longer payback horizons and roll them into performance contracts.

Finally, we plan to make an investment in advanced meters to ensure that facility energy usage can be monitored and building management updated appropriately. This effort will be coordinated with ongoing centralization of electricity procurement by our state Administration and Finance agency.

8. Standard Metrics (required):**

JOB METRICS	Planned
Jobs Created	3340^
Jobs Retained	0
TOTAL JOBS	3340

^ Based on $92,000 per job as required by DOE.

9. Specific Metric Activity (required):**

Metric Activity: _Building Retrofits_____

SPECIFIC METRICS	Planned
Number of buildings retrofitted, by sector	240
Square footage of buildings retrofitted, by sector	18,360,000

10. User Specified Metrics (optional): *

METRICS	Planned
N/A	

11. Program Year Funds by Source *

a. SEP grant (all funds in the approved budget)	Planned
DOE ARRA	$ 14,911,000
	$
Market Budget Total	$
b. Leveraged funds anticipated (outside approved budget)	
Private financing through performance contracts	$292,400,000
	$

**Please use additional pages if more space is needed.*

***Mandatory requirement*

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(03/09)

U.S. Department of Energy
State Energy Program (SEP) Narrative Information Worksheet

OMB Control No.: 1910-5126
Expires: TBD

(Grant Number: EE00227)

State Title: Massachusetts Energy Efficiency Transformation

1. Market (choose one):

❑ Buildings	× Industry
❑ Electric Power and Renewable Energy	❑ Policy, Planning, and Energy Security
❑ Energy Education	❑ Transportation

2. State: MA

3. Program Year: 2009 Date Start: 4/1/2009 Date End: 3/31/2009

4. Topics Involved in the Overall Program Market (choose all that apply):

❑ Agriculture	❑ Federal, state, and local facilities	❑ Procurement of efficient products **
❑ Alternative fuels	❑ Federal Energy Management Program	❑ Public information
❑ Appliance efficiency and standards	× Financing energy programs	❑ Rating and labeling
❑ Bioenergy and biobased products	❑ Fuel cells	❑ Rebuild America
❑ Biomass power	❑ General energy efficiency for industry	× Residential buildings
❑ Building America	❑ Geothermal	❑ Right turn on red **
❑ Carpools, vanpools, and ridesharing **	❑ Green power programs	❑ Schools
❑ Clean Cities	❑ Heavy vehicles and trucks	❑ Solar power
❑ Climate change planning	❑ Home energy ratings	❑ State energy strategic plans
❑ Combined heat and power	❑ Hydrogen	❑ Telecommuting
× Commercial buildings	❑ Hydropower	❑ Thermal **
❑ Curriculum development	❑ Industrial processing	❑ Traffic signals
❑ Demand reduction	❑ Industries of the future	❑ Transmission and infrastructure reliability
❑ Distributed energy generation	❑ Lighting **	❑ Transportation alternatives
❑ Energy and environment	❑ Low-income weatherization	❑ Waste management and recycling
❑ Energy building codes	❑ Manufacturing	❑ Water systems
❑ Energy consumption and price statistics	❑ Motors and other industrial systems	❑ Wind energy
❑ Energy emergency planning	❑ Performance contracting	
❑ ENERGY STAR	❑ Policy and energy legislation	

5. Estimated Annual Energy Savings: 87500 MBtus

6. Description (executive summary of goals and objectives)*

ARRA funds offer the opportunity to demonstrate solutions to a number of long-standing challenges in improving building energy performance and transform future energy efficiency efforts. DOER plans to issue a Request for Responses (RFR) to address one or more of the following challenges:

- Reducing petroleum usage in New England by expanding energy efficiency opportunities to people and businesses who use oil and propane for heating and are not covered by the programs for regulated fuels;
- Demonstrating a deep energy retrofit (DER) strategy at one large building or many smaller buildings, in light of the recent work of the Governor's Task Force on Zero Net Energy Buildings;
- Innovative approaches to financing customer adoption of energy efficiency improvements.

7. Program Year Milestones*

	Milestone	Planned (Number)
1	Contracts negotiated and signed; retrofits initiated	2500
2	50% of retrofits completed	1250
3	100% of retrofits completed	1250
4		

Please use additional pages if more space is needed.
***Mandatory requirement*

- Education, outreach, and mobilization to help people to choose to make energy performance improvements.

DOER plans to evaluate responses with an eye towards scalability and integration into our existing programs. We also expect respondents to identify other funding sources to leverage SEP funds maximally.

DOER is taking a 2 step process to this effort:
1. DOER plans to issue a Request for Information (RFI) in the very near future to seek input from potential respondents on the solicitation process.
2. DOER will incorporate information gleaned from responses and then issue one or more Request for Responses (RFR). Proposals would be due within 6 weeks and award would occur within 4 weeks after submission deadline, contingent on DOE approval of this plan. Proposals would be required to commit to the Special Terms and Conditions required with ARRA State Energy Program funds.

Numeric program milestones will depend on projects awarded through solicitation. The estimates included assume a traditional retrofit costing $8,000 per building and resulting in 20% savings.

8. Standard Metrics (required):**

JOB METRICS	Planned
Jobs Created	326^
Jobs Retained	0
TOTAL JOBS	326

^ Based on $92,000 per job as required by DOE.

9. Specific Metric Activity (required):**

Metric Activity: __Building Retrofits_____

SPECIFIC METRICS	Planned
Number of buildings retrofitted, by sector	2500
Square footage of buildings retrofitted, by sector	4,375,000

10. User Specified Metrics (optional): *

METRICS	Planned
N/A	

11. Program Year Funds by Source *

a. SEP grant (all funds in the approved budget)	Planned
DOE ARRA	$ 20,000,000
	$
Market Budget Total	$
b. Leveraged funds anticipated (outside approved budget)	
Private matching funds	$ 10,000,000
	$

Please use additional pages if more space is needed.

***Mandatory requirement*